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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/541,690	04/03/2000	Raphael Duval	PET-1638-D1	4031

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MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
2200 CLARENDON BLVD.
SUITE 1400
ARLINGTON, VA 22201

EXAMINER

KRISHNAN, GANAPATHY

ART UNIT PAPER NUMBER

1623

DATE MAILED: 11/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/541,690

Applicant(s)

DUVAL ET AL.

Examiner

Ganapathy Krishnan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21,60,61,65,69-72,75 and 76 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 21,60,61,65,69-72,75 and 76 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____.

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DETAILED ACTION

The Amendment B filed September 04, 2003 has been received, entered into the record and carefully considered. The following information provided in the amendment affects the instant application:

1. Claims 7, 11-20, 22-24, 26, 27, 49, 53, 54, 58 and 59 have been cancelled.
2. Claims 1-10, 25, 28-49, 50-52, 55-57 have been withdrawn.
3. Claims 21, 60, 65, 69, 70 and 76 have been amended.
4. Remarks drawn to rejections under U.S.C. 112 second paragraph.

Claims 21, 60-61, 65, 69-72, 75 and 76 are pending. Applicants elected claims 21, 60-61, 65, 69-72, 75 and 76 for prosecution. See interview summary (paper # 19) mailed with the previous office action dated 6/02/2003. An action on the merits of claims 21, 60-61, 65, 69-72, 75 and 76 is contained herein below.

Claim Objections

In claim 60 applicants were suggested to use Markush language for the recitation "at least one group selected from the group formed by". Even though the claim has been amended the proper Markush language is not recited. In Claim 69, in the definition for X, the recitation "selected from the group formed by" should be changed to "selected from the group consisting of". The same Markush language should also be recited in claim 70 in line 3. The objections to claims 21, 61 and 76 have been overcome by amendments.

Claim Rejections - 35 USC § 112

The rejection of claim 69 has been overcome in view of the applicants providing a definition for the term "silicylene".

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The 35 USC 112 second paragraph rejections of claims 21, 60, 61, 65, 69-72, 75 and 76 are being maintained for reasons of record. Some new rejections are made of record.

In claim 60, the claim recitation defines Q as a group comprising oxygen, nitrogen or sulphur or a precursor of such a group. As defined Q cannot be any group comprising the said atoms. For example if Q is OH or COOH valence becomes a problem the way Q is attached in the structure shown at the top of claim 60. It appears that Q has to be defined such that valence is not a problem. Clarification is needed.

Claims 61, 65 and 69 have lines on either side of the structure that appear to be dangling valences. Applicants argue that these claims merely define compounds comprising a radical and that one of ordinary skill in the art could readily understand the metes and bounds of the claims. This is not found to be persuasive. If it is a radical it is not clear what this radical is attached to. The same holds good for claims in which such structures with open-ended lines are seen. In claim 65 it is still not clear which structure is referred to as formula III. Claim 65 as amended recites formula III as in claim 64. Even though claim 64 recites formula III it is still not clear what formula is referred to by formula III.

In claim 69 the second and third structures recited have dotted lines and some attachments are not shown properly with bonds. It is not clear what these dotted lines mean. Clarification is needed. The claim also defines X as alkoxy, hydroxyl and trihalogenoalkyl groups. If X is alkoxy, hydroxyl and trihalogenoalkyl as defined then from the way the attachment is shown for X in the structure the oxygen of the hydroxyl, alkoxy and trihalogenoalkyl will have an extra bond with a positive charge. It is not clear

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if this is what is intended in these structures. If they are intended to be neutral hydroxy, alkoxy or trihalogenoalkyl groups then valence is a problem since the oxygen in these groups will have three bonds. With three bonds the oxygen cannot be neutral. The same holds good for all structures where X is attached in the same manner and the same definition of X is retained. A similar valence problem is seen for Y= amino group the way the attachment of Y is shown in the structures in claims where such structures appear. Claim 69 also fails to end in a period. It is not clear if the claim ends as recited or if additional text is missing. This renders the claim indefinite.

Claim 70 has been amended to recite "and comprising -SH, -SiH or -CH=CH-". It is not clear what comprises the said groups.

Claim 71 is still not clear in spite of the explanation given by the applicant. Applicants state that with respect to claim 71, claim 61 defines a compound including at least two chiral units. It is not clear if the terms "chiral compound" recited in claim 71 is the same as the chiral unit recited in claim 61.

With respect to claim 75, applicants have not fully addressed the clarity issue raised in the previous office action. The claim recites on line 3, the following "-COCl or its precursor; -COOH;". As recited this conveys the meaning that -COCl or its precursor is one member of the group and -COOH is the other member. Since -COOH is the precursor for -COCl then the symbol -COOH is recited twice. It is not clear if the term "precursor" appearing after -COCl refers to a formula other than -COOH. The valence problem raised regarding the attachment of Q if Q is -N=C=O or -N=C=S has not been clarified.

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The recitation “in which said chiral unit of a product is a glycosidic unit” in claim 76 is not clear. If applicants intend the chiral unit to be a glycosidic unit then the claim has to be reworded to convey the same. The clarification regarding the heteroholosides is accepted.

Claims that depend from rejected base claims that are indefinite are also rendered indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 21, 60, 61, 65, 70-72 are rejected under 35 U.S.C. 102(e) as being anticipated by Still et al (US 5571911).

Still et al disclose a chiral crosslinked compound that could be bound to a solid support (see abstract). This disclosure of Still is deemed to meet the limitations of claims 21, 60, 61, 65, 70-72 since these are product by process claims wherein the claims are drawn to a crosslinked chiral compound.

Product by process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps, which in the instant claims is a crosslinked chiral compound.

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“Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Conclusion

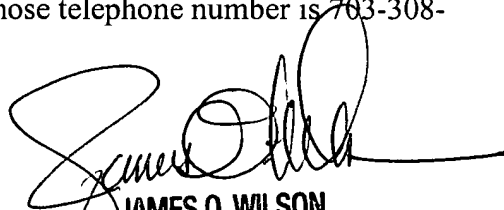
1. Claims 21, 60-61, 65, 69-72, 75 and 76 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ganapathy Krishnan whose telephone number is 703-305-4837. The examiner can normally be reached on 8.30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 703-308-4624. The fax phone number for the organization where this application or proceeding is assigned is 703-305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

GK



JAMES O. WILSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600